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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,190	03/17/2004	Piyush Saxena	026808-003100US	3429

20350 7590 08/28/2008
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EXAMINER

RUTLAND WALLIS, MICHAEL

ART UNIT	PAPER NUMBER
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2836

MAIL DATE	DELIVERY MODE
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08/28/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/802,190	Applicant(s) SAXENA ET AL.	
	Examiner MICHAEL RUTLAND WALLIS	Art Unit 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 October 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments have been considered but are moot in view of the new grounds of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 7, 26 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blair et al. (U.S. Pat. No. 6,700,351) in view of Johnson et al. (U.S. Pat. No. 6,462,961) in further view of Moore (U.S. Pat. No. 4,623,957)

With respect to claims 1, 26 and 28 Blair teaches an uninterruptible power supply for providing AC power to a load (item 8) in a local area network (see "local" group of microcontrollers constituting controlled area network, CAN col. 5 lines 55-60 and col. 7 lines 55-60), the local area network including at least one computing device (controllers 100 of each power module or battery module controller see PCB 112, a 8051 derivative controller, see col. 8 lines 18-55), the UPS (see Fig. 1) comprising: an input (item 7) configured to receive an AC power (col. 2 lines 34-35) connector and to receive AC

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power through the AC power connector; an output (items 9 and 10) configured to couple to another AC power connector and to provide AC power to the load (item 8) through the another AC power connector; a DC voltage source (provided by item 5 battery) configured to provide DC power, the DC voltage source including an energy storage device (battery); an inverter (provided by item 4 see col. 3 lines 40-45 further see Fig. 5) coupled to the DC voltage source (see for example Fig. 2 or 3) and configured to receive DC power from the DC voltage source and to convert (conversion described in col. 3 lines 40-45 and shown in Fig. 5) the received DC power to AC power; a transfer switch (bypass contactor item 10 controlled to open to supply power from the battery modules see col. 17 lines 38-62 describing detailed switching operation) coupled to the input and to the inverter and configured to selectively couple (col. 3 lines 35-50 Blair described two power paths a first from a the AC line input and a second provided by the batteries and power module circuitry switched by a contactor item 10) one of the input (item 7) and the inverter (provided by item 4) to the output to provide AC power to the output; a first controller (primary controller item 2) coupled to the transfer switch and configured to control the transfer switch to selectively couple one of the input and the inverter to the output; a network interface (see col. 3 lines 50-55 via controlled interface or CAN interface) coupled to the first controller (primary controller 2) and configured to communicate (forms communication backbone col. 3 lines 15-20) with the computing device (item 100 with a power module for example) via the network (col. 7 lines 55-60) and to communicate with the first controller (items 2) to transfer data (communication of instructions) between the first controller and the

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computing device and to provide commands (instructions) from the computing device to the first controller; and a housing (see Fig. 2 for example) containing the input, the output, the DC voltage source, the inverter, the transfer switch, the first controller, and the network interface, the housing including a chassis (see Fig. 1 item 1 frame). Blair does not teach the UPS is configured to be mounted to a wall. Johnson teaches universal mounting system to mount or bracket to securely mount a UPS to wall (col. 4 lines 1-45 and Figs. 10 and 11) It would have been obvious to one of ordinary skill in the art at the time of the invention to mount the system of Blair to a wall in order to stabilize the system (col. 11 lines 25-40) to prevent damage. Neither Blair nor Johnson discloses a single aperture on the back wall of the chassis configured to receive a single fastener to mount the UPS to a vertical wall. Moore teaches a mounting system and bracket see for example in figure 6 wherein electronics components (seen in Fig. 4 for example) are configured to be attached to a wall with a rear aperture (items 31) to receive a single fastener (col. 3 lines 10-15) for attachment to a vertical wall. It would have been obvious to one of ordinary skill in the art at the time of the invention use a mounting arrangement similar to that disclosed in Moore to mount a UPS to a wall in order to allow simple removal and/or repositioning of the UPS or electronics module.

With respect to claims 2 Blair teaches the frame includes base and Johnson teaches a fastener connected to the wall, a material and a thickness of the base being adapted to support a weight of the UPS when the UPS is mounted to the wall (Figs. 10 and 11).

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With respect to claim 7 Blair teaches the output includes at least one switched power outlet and wherein the first controller is configured to perform firmware (col. 5 line 15) instructions to process commands received by the network interface to control the at least one switched power outlet.

Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blair et al. (U.S. Pat. No. 6,700,351) in view of Johnson et al. (U.S. Pat. No. 6,462,961) in view of Moore (U.S. Pat. No. 4,623,957) as applied to claims 1 and 9 above, and further in view of Kadoi et al. (U.S. Pat. No. 7,181,630) in view of Pugh et al. (U.S. Pat. No. 5,534,734)

With respect to claims 5-6 Blair teaches a second controller coupled to the first controller and the network interface and configured to communicate with the first controller and to communicate with the network interface. Blair does not teach the differing first and second protocols used in the communication between controllers and with the network interface combined with a reset device as claimed, Blair also teaches the use of reset messages on the CAN. Kadoi teaches a UPS system wherein USPs are divided in groups (Fig 24 for example). Kadoi teaches the use of well-known communication protocols such as TCP/IP an asynchronous transfer mode exchange network (col. 12 lines 10 –15). Kadoi discloses the use of multiple communication formats or protocols such as wherein a second group controller (item 3) communicates with other group controllers via routers via a higher communication interface (14) and lower communications interface (15) for inter group communication. It would have been obvious to one of ordinary skill in the art at the time of the invention to include the use

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of a second controller and the use of a second communication protocol in order to control multiple groups of UPS systems to increase power reliability. Neither Blair nor Kadoi disclose a reset device connected as claimed, however, the use of reset buttons and pins on microcontroller such as the type typified by Blair and Kadoi is a common inclusion in order to place the controller back in an original or default state. Pugh discloses the inclusion a reset pin (item 19) see small aperture surrounding the button in figure 1A. It would have been obvious to one of ordinary skill in the art at the time of the invention to further include the use of a reset device in order to give the use a mechanical means of quickly and assuredly resetting the system.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Blair et al. (U.S. Pat. No. 6,700,351) in view of Johnson et al. (U.S. Pat. No. 6,462,961) in view of Moore (U.S. Pat. No. 4,623,957) as applied to claim 1 above, and further in view of Pugh et al. (U.S. Pat. No. 5,534,734) Blair teaches the device of claim 7, as described above. Blair does not teach the further limitation to require the power outlets operating in arrangement instruct the first controller to control power to a first of the outlets, a second of the outlets, or a pair of the switched power outlets depending upon a received command and to control the power by turning power off, turning power on, or cycling power depending upon the received command. Pugh teaches a load shedding UPS with plural power outlet wherein Pugh teaches switching control of power relays (31) to turn on/off the power at the plural power outlets. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the combination of

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Blair and Johnson include such a control scheme in order to shed loads as battery power becomes depleted.

Claims 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blair et al. (U.S. Pat. No. 6,700,351) in view of Johnson et al. (U.S. Pat. No. 6,462,961) in view of Foye (U.S. Pat. No. 6,266,250) in view of Ewing et al. (U.S. Pat. No. 5,949,974). Blair does not teach the switched power outlet is controlled to cycle power at the outlet. Ewing teaches a system for interfacing and controlling power supply arrangements wherein Ewing teaches the cycling of power at outlets where network devices are connected to allow the device to be rest after the occurrence of a problem or abnormality (col. 7 lines 55-65). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Blair to cycle the power at the switched power outlet to allow the connected device to be reset after the presence of an abnormality.

Claims 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blair et al. (U.S. Pat. No. 6,700,351) in view of Johnson et al. (U.S. Pat. No. 6,462,961) in view of Moore (U.S. Pat. No. 4,623,957) in further view of Lamp et al. (U.S. Pat. No. 5,486,664)

With respect to claims 30-31 Blair teaches an uninterruptible power supply for providing AC power to a load (item 8) in a local area network (see "local" group of microcontrollers constituting controlled area network, CAN col. 5 lines 55-60 and col. 7 lines 55-60), the local area network including at least one computing device (controllers 100 of each power module or battery module controller see PCB 112, a 8051 derivative

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controller, see col. 8 lines 18-55), the UPS (see Fig. 1) comprising: an input (item 7) configured to receive an AC power (col. 2 lines 34-35) connector and to receive AC power through the AC power connector; an output (items 9 and 10) configured to couple to another AC power connector and to provide AC power to the load (item 8) through the another AC power connector; a DC voltage source (provided by item 5 battery) configured to provide DC power, the DC voltage source including an energy storage device (battery); an inverter (provided by item 4 see col. 3 lines 40-45 further see Fig. 5) coupled to the DC voltage source (see for example Fig. 2 or 3) and configured to receive DC power from the DC voltage source and to convert (conversion described in col. 3 lines 40-45 and shown in Fig. 5) the received DC power to AC power; a transfer switch (bypass contactor item 10 controlled to open to supply power from the battery modules see col. 17 lines 38-62 describing detailed switching operation) coupled to the input and to the inverter and configured to selectively couple (col. 3 lines 35-50 Blair described two power paths a first from a the AC line input and a second provided by the batteries and power module circuitry switched by a contactor item 10) one of the input (item 7) and the inverter (provided by item 4) to the output to provide AC power to the output; a first controller (primary controller item 2) coupled to the transfer switch and configured to control the transfer switch to selectively couple one of the input and the inverter to the output; a network interface (see col. 3 lines 50-55 via controlled interface or CAN interface) coupled to the first controller (primary controller 2) and configured to communicate (forms communication backbone col. 3 lines 15-20) with the computing device (item 100 with a power module for example) via

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the network (col. 7 lines 55-60) and to communicate with the first controller (items 2) to transfer data (communication of instructions) between the first controller and the computing device and to provide commands (instructions) from the computing device to the first controller; and a housing (see Fig. 2 for example) containing the input, the output, the DC voltage source, the inverter, the transfer switch, the first controller, and the network interface, the housing including a chassis (see Fig. 1 item 1 frame). Blair does not teach the UPS is configured to be mounted to a wall. Johnson teaches universal mounting system to mount or bracket to securely mount a UPS to wall (col. 4 lines 1-45 and Figs. 10 and 11) It would have been obvious to one of ordinary skill in the art at the time of the invention to mount the system of Blair to a wall in order to stabilize the system (col. 11 lines 25-40) to prevent damage. Neither Blair nor Johnson discloses a single aperture on the back wall of the chassis configured to receive a single fastener to mount the UPS to a vertical wall. Moore teaches a mounting system and bracket see for example in figure 6 wherein electronics components (seen in Fig. 4 for example) are configured to be attached to a wall with a rear aperture (items 31) to receive a single fastener (col. 3 lines 10-15) for attachment to a vertical wall. It would have been obvious to one of ordinary skill in the art at the time of the invention use a mounting arrangement similar to that disclosed in Moore to mount a UPS to a wall in order to allow simple removal and/or repositioning of the UPS or electronics module. Blair as modified above teach the UPS arrangement however do not teaches the housing and cable details of the housing providing an opening at a bottom of the UPS when mounted to the vertical wall to allow a cable attached to the another AC power

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connector to extend downward through the opening when the another AC power connector is connected to the output. Lamp teaches (Fig. 1 and 2) the use of a cover and sockets in a power distribution arrangement with an opening at a bottom of the unit when mounted to the vertical wall to allow a cable attached to the power connectors to extend downward through the opening when the power connectors are connected to the output. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify Blair and Johnson to use a housing with an opening at a bottom when mounted to the vertical wall to allow a cable to extend downward in order to protect the plugs from inadvertently being removed from the sockets.

Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blair et al. (U.S. Pat. No. 6,700,351) in view of Johnson et al. (U.S. Pat. No. 6,462,961) in view of Moore (U.S. Pat. No. 4,623,957) in view of Lamp et al. (U.S. Pat. No. 5,486,664) in view of Ewing et al. (U.S. Pat. No. 5,949,974) Blair teaches the output includes one switched power outlet and wherein the first controller is configured to perform firmware (col. 5 line 15) instructions to process commands received by the network interface to control the at least one switched power outlet. Blair does not teach the use of additional outlets to power other loads. It would have been obvious to one of ordinary skill in the art at the time of the invention to include the use of additional outlets at the output in order supply more than one load at a time since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

With respect to claim 14 Blair as modified above teaches the device of claim 13, as described above. Blair does not teach the plural power outlets operating in arrangement instruct the first controller to control power to a first of the outlets, a second of the outlets, or a pair of the switched power outlets depending upon a received command and to control the power by turning power off, turning power on, or cycling power depending upon the received command. Pugh teaches a load shedding UPS with plural power outlet wherein Pugh teaches switching control of power relays (31) to turn on/off the power at the plural power outlets. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the combination of Blair include such a control scheme in order to shed loads as battery power becomes depleted.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Blair et al. (U.S. Pat. No. 6,700,351) in view of Johnson et al. (U.S. Pat. No. 6,462,961) in view of Moore (U.S. Pat. No. 4,623,957) in view of Lamp et al. (U.S. Pat. No. 5,486,664) in view of Young (2003/0197723) Blair as modified above teaches a user interface (item 6 see col. 3 lines 5-10) for displaying and configuring information relating to the status of the UPS system. Blair is silent on any teaching of use of HTML pages to display and said information. Young teaches the use of a similar system to that disclosed by Blair, wherein Young teaches HTML pages may be used to display and configure the UPS. It would have been obvious to one of ordinary skill in the art at the time of the invention to use HTML pages as taught by Young in order to utilize the viewing of the information via a web browser.

Claim 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blair et al. (U.S. Pat. No. 6,700,351) in view of Johnson et al. (U.S. Pat. No. 6,462,961) in view of Moore (U.S. Pat. No. 4,623,957) in view of Lamp et al. (U.S. Pat. No. 5,486,664), and further in view of Kadoi et al. (U.S. Pat. No. 7,181,630) in view of Pugh et al. (U.S. Pat. No. 5,534,734)

With respect to claims 16-17 Blair teaches a second controller coupled to the first controller and the network interface and configured to communicate with the first controller and to communicate with the network interface. Blair does not teach the differing first and second protocols used in the communication between controllers and with the network interface combined with a reset device as claimed, Blair also teaches the use of reset messages on the CAN. Kadoi teaches a UPS system wherein USPs are divided in groups (Fig 24 for example). Kadoi teaches the use of well-known communication protocols such as TCP/IP an asynchronous transfer mode exchange network (col. 12 lines 10 –15). Kadoi discloses the use of multiple communication formats or protocols such as wherein a second group controller (item 3) communicates with other group controllers via routers via a higher communication interface (14) and lower communications interface (15) for inter group communication. It would have been obvious to one of ordinary skill in the art at the time of the invention to include the use of a second controller and the use of a second communication protocol in order to control multiple groups of UPS systems to increase power reliability. Neither Blair nor Kadoi disclose a reset device connected as claimed, however, the use of rest buttons and pins on microcontroller such as the type typified by Blair and Kadoi is a common

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inclusion in order to place the controller back in an original or default state. Pugh discloses the inclusion a reset pin (item 19) see small aperture surrounding the button in figure 1A. It would have been obvious to one of ordinary skill in the art at the time of the invention to further include the use of a reset device in order to give the use a mechanical means of quickly and assuredly resetting the system.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Rutland-Wallis whose telephone number is 571-

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272-5921. The examiner can normally be reached on Monday-Thursday 7:30AM-6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2084. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael J Sherry/
Supervisory Patent Examiner, Art Unit 2836

MRW